3.9 Zoonotic Diseases

Safety Initiatives in Place Prior to Review

Wildlife Services is primarily a wildlife damage management program managed and supervised by wildlife biologists. The primary purpose of the program is to assist people who are experiencing conflict with one or more wildlife species by removing or mitigating the conflict. Although WS manages wildlife damage rather than wildlife, per se, contact with wildlife and wildlife habitat constitutes a major facet of the work done by WS personnel. Since zoonotic diseases and parasites are a natural component of wildlife populations and their environment, WS personnel are routinely subjected to potential contact with various wildlife diseases, infectious agents and parasites.

For many years WS personnel have worked in close contact with wildlife, conducted work within wildlife habitat or in areas containing wildlife-related debris, and handled wildlife, wildlife parts or animal remains. In earlier years, few or no precautions were taken when close contact with wildlife or wildlife-related objects was made. If any protective clothing was employed, it was generally limited to gloves which were usually cloth or leather rather than latex/nitrile. The purpose of the gloves was aimed more at protecting the hands from excessive wear than for protection from contagions. This level of "comfort" around wildlife was not unique to WS and, in fact, is fairly common within wildlife management organizations, groups and agencies. To many wildlife biologists, technicians or enthusiasts (hunters) wildlife species are generally not considered to be associated with diseases unless or until a specific disease situation is encountered.

In 2004, WS developed and initiated the Surveillance and Emergency Response System (SERS). Wildlife Services developed the SERS program with the intention of addressing both the routine monitoring of wildlife-related diseases (surveillance) and to prepare for rapid response to acute disease outbreaks. SERS initially hired 23 Wildlife Disease Biologists (WDBs) and stationed them within WS state programs across the nation. The majority of the WDBs were assigned to oversee more than one state. In 2007, the number of WDBs was increased to 44 and the oversight responsibility of the majority of the WDBs was reduced to one state. As of 2007, 43 states have a WDB residing within the state and the remaining seven states have a WDB assigned to them.

When WS developed the SERS program, the intention was to target wildlife biologists to fill the WDB positions rather than animal health specialists or veterinarians, because the purpose of the position is primarily wildlife-oriented rather than disease-related. The WDB is a wildlife professional whose job it is to monitor the health of wildlife communities through sampling wildlife. The WDB was intended to be a wildlife biologist with knowledge, skills and abilities relating to capturing and sampling wildlife for diseases identified as suspect or targeted. Special training in necropsy technique, foreign animal diseases, and personal

protective equipment is provided the WDB on a routine schedule and in-the-field exercises or projects are assigned to simulate emergency response mobilizations.

The SERS WDB is stationed with and supervised by the WS state program of the state the WDB is assigned to cover. Because the WDB is stationed with the WS state program, the knowledge, skills and abilities acquired by the WDB is readily available to the state program. While the WDB is not intended to represent a formally trained health technician or disease specialist, the WDB does represent a source of locally pertinent disease information, disease safety information and PPE use information. All WDBs are encouraged to share their knowledge of diseases, disease safety and PPE use with state program personnel and to be readily available to both State Directors and District Supervisors to provide talks and training sessions at state and district meetings.

The SERS WDBs are designated as WS' primary first responders and are prepared to report to an incident within 24-48 hours. The following items pertain to all SERS WDBs.

- Receive an annual FOH medical physical to ensure they are medically fit to conduct work in full PPE gear and to be allowed respirator fit-testing.
- Are fit-tested for a respirator annually.
- Are provided with a supply of PPE equipment and PPE use and safety training is conducted as part of required training.
- Are required to participate in necropsy and FAD training courses and to take refresher courses at least every other year.
- Are annually subject to mobilization assignments which require they report to work assignments at a distant location on short notice. These assignments provide practice for rapid response assignments.
- Have access to SERS emergency response trailers. SERS has three emergency response trailers that are positioned around the country and available for use in emergency situations. These trailers are fully equipped with a large supply of PPE, sample collection supplies, generators, autoclaves and other surveillance and emergency response equipment and supplies.
- Have access to the SERS supplies warehouse in Fort Collins. PPE equipment and supplies are stocked that can be used to augment the trailer supplies if needed.

Wildlife Services recognizes that the program's field personnel are also potentially exposed to wildlife-related infectious agents and parasites.

- All WS field personnel are encouraged to be vaccinated for rabies and to have their titers checked routinely.
- All WS field personnel are routinely provided with latex/nitrile gloves and informed that replacement supplies are readily available.
- Supervisors are instructed to use state and district meetings to remind field personnel that they are to use protective gloves when handling wildlife or wildlife-related objects.

- All WS field personnel are instructed to record in their field diaries any/all incidents where they encounter parasites (e.g., fleas, ticks), or sick animals or make unsafe contact with wildlife during work activities.
- All WS field personnel are provided with an APHIS form 260 (Medical Alert Card) which provides them with an "official" statement that their position with the program puts them in contact with wildlife and thus, in cases of illness, medical personnel should consider "exotic" enzootic diseases as well as the more routine generic illnesses they usually see. This medical alert card in combination with information on possible diseases they might have encountered, and information about what symptoms they should consider suspicious, is intended to provide WS personnel with enough information to allow them to inform their medical professionals of the specific risks they have as wildlife professionals.

Review Activities

Review of the WS zoonotic disease program was conducted by the Berryman Institute, the premiere non-governmental organization dedicated to resolving human-wildlife conflict. To assess the degree of safety for WS in the arena of zoonotic diseases, reviewers evaluated WS Directives, documents and manuals pertaining to management and operations, training requirements and curricula and training records, safety procedures. They also inspected four WS state programs and one rabies baiting operation to observe equipment use, field techniques, administrative support, interviewed WS staff and administrators and investigated and inquired about zoonotic infection reports.

Summary of Review Findings

Overall, WS is to be commended for its zoonotic safety record and for the creation of the National Wildlife Disease Program (NWDP), which is an important and innovative approach to infuse zoonotic disease awareness and safety throughout the agency. But, there is always room for improvement, and WS can improve on an already good zoonotic safety record. WS personnel are professionals who are committed to the program's mission. Supervisors and managers must understand the range of talents and needs of their employees, and appropriately tailor safety solutions to the workforce. While attention to the details of safety was evident during most site visits, there were occasional lapses in appropriate behaviors and techniques. It would appear that the desire to accomplish the WS mission as safely as possible is the goal of all WS personnel encountered. Achieving this goal will require some increased vigilance on the part of leadership and the allocation of appropriate resources (financial and man-power) to accomplish this task. Perhaps most importantly, the development of agency-wide safety directives, protocols and procedures to protect personnel against zoonotic disease risks will allow the development of effective training protocols and subsequent field practices.

Wildlife Services' Wildlife Disease Biologists (WDBs) work in an environment where there is a potential for contracting zoonotic diseases and parasites if proper care and practices are not conducted. Their principal duties involve frequent

handling of potentially diseased animals, and they are WS' 'first responders' to disease outbreaks. The NWDP currently offers advanced training to WDBs in animal handling techniques, use of personal protection equipment and bio-security. For the safety of these employees, it is imperative that WS continue to provide advanced training on wildlife diseases and personal protection from job-related health hazards. A comprehensive list of skills/knowledge for wildlife disease biologists is needed to serve as a benchmark for future training and hiring. The risk of contracting zoonotic diseases is not unique to WDBs. A high percentage of Wildlife Specialists and general biologists routinely handle animals or work in environments where there is a high risk of exposure to animal borne diseases and or parasites. Historically, the protection of these employees from zoonotic diseases has not been a priority of either the employees or the Program. Wildlife Services should take steps to increase the general knowledge of all WS field personnel about potential risks and mitigation techniques to avoid disease threats when handling animals. WS' WDBs should be assigned the responsibility of providing information to employees in their assigned areas on the zoonotic diseases of concern in the work area, safety techniques, and personnel protection, as well as advice on procedures for documenting exposure and seeking medical treatment.

Priority Recommendations

The following recommendations were deemed the most important recommendations for WS, in order of priority, which should be addressed immediately. Although these are prioritized 1-8, they should all be considered essential and, in fact, they build upon each other.

1. Develop a directive to address the real and potential risks of zoonotic exposure and disease.

2. Identify regional (if not by state) zoonotic disease risks that is cross referenced to the animals that may transmit each disease. Make this information available to all personnel.

3. Continue to develop a higher level of expertise about zoonotic diseases among wildlife disease biologists.

4. Initiate discussions within the agency and with OWCP to address the concern that many zoonotic diseases can and are contracted as part of WS work responsibilities, but that these exposures are difficult to document and thus file OWCP claims.

5. Develop agency-wide zoonotic disease safety protocols.

6. Establish a training academy (distance component as well as local or face-to-face practical training), which incorporates zoonotic disease information into all aspects of WS activities.

7. Maintain a positive work environment with open communications.

8. Integrate wildlife (zoonotic) disease awareness into all aspects of WS activities.